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To determine if certain non-intellectual factors affected educational persistence, three null-hypotheses were tested for both sexes, namely, that there is no significant difference between (1) those who persist (P) and those who withdraw (W), (2) those who persist (P) and those who are dismissed (D), and (3) those who withdraw(W) and those who are dismissed (D). The sample was taken from 952 entering freshmen and consisted of the 867 who had completed the Student Profile Section of the American College Testing Battery. In the 867 tested, there were 440 P's, 241 W's, and 186 D's. The P's indicated that they planned to join science clubs and take part in projects, that they liked the special curriculum of the University and its progressive outlook, that they were attracted by its fraternities, sororities, and good athletic program; they were also less likely to be engaged or dating seriously. The W's tended to choose careers unrelated to the University's available majors and showed considerable interest in music, debating, acting, and other intramural activities. The D's planned to engage in more athletic programs and other intramurals and were more likely to be engaged or dating seriously. At present these non-intellective factors can be used in only a limited way to assist in prediction, but the student personnel staff shoudl be aware of them and conduct further investigation. (HH)

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RELATIONSHIP OF CERTAIN NONINTELLECTIVE FACTORS TO PERSISTENCE

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The subject of who remains in the university and who withdraws or drops out has received attention from all sections of our society. A summary of the literature (Marsh, 1966) of the past ten years indicates extensive research has been done and many approaches used to study persistence. The question remains as to what distinguishes those who persist from those who withdraw or are dropped. The value of nonintellective factors and their influence on persistence in the university are receiving increased attention.

Hood (1957) and Iffert (1958) found certain nonintellective factors to be significant in studying persistence. Prediger (1965) stated that the decision to withdraw from or remain in college is, at least in part, nonintellective. He further stated that whether or not biographical data can make an independent contribution to the prediction of college persistence is open to question. Holland and Richards (1966) in a study of academic and nonacademic accomplishment found the correlations to be generally negligible.

The major purpose of this study was to determine if differences exist between those students who have maintained

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continuous enrollment in the university for four semesters and entered the fifth semester, those who withdrew voluntarily within the first four semesters, and those who were dismissed for academic deficiencies within the first four semesters. The variables tested were the items found in the Student Profile Section of the American College Test (ACT) battery (ACT Program, 1965a, 1965b).

On the basis of the above criteria, the following null hypotneses were tested for each sex:

1. There is no significant difference on the variables between subjects who maintained continuous enrollment in the university, designated P, and those who withdrew voluntarily, designated W.

2. There is no significant difference on the variables between subjects who maintained continuous enrollment in the university (P) and those who were dismissed for academic deficiencies, designated D.

3. There is no significant difference on the variables between subjects who withdrew voluntarily (W) and those who were dismissed for academic deficiencies (D).

Method

The sample consisted of all freshmen who had completed the Student Profile Section of the ACT battery during their senior year in high school and were entering Stout State University in the fall of 1965. Table 1 presents a summary

of the total freshman enrollment for the fall of 1965 and the sample as it relates to the categories to be studied.

Insert Table 1 about here

The sample of males was 92% of the population and for females it was 91%. Table 1 indicates the sample of males was divided into the appropriate categories which placed 47.6% in category P; 21.6% in W; and 30.7% in D. For females the sample was distributed with 54.7% of the sample in category P; 35.6% in W; and 9.6% in D.

The statistical procedure was a chi square analysis of relationship between the categories of the sample, identified by P, W, and D, within each sex and on each of the ACT variables. This involved a comparison of P with W, P with D, and W with D on each variable for each sex. The chi square with one degree of freedom was calculated using Yates' correction for continuity (Ferguson, 1966).

Results

The results of analyses of the part of the Student Profile Section for Goals and Aspirations are presented in Table 2 for males and Table 3 for females.

Insert Tables 2 and 3 about here

Table 2 shows two significant chi square values were found for males and Table 3 shows three significant relationships for females. Both males and females showed significance when voluntary withdrawals were compared with those dropped for academic deficiencies on choice of vocational role. An examination of the frequencies shows those who voluntarily withdrew more often made a vocational choice which was not directly related to one of the undergraduate majors at Stout State University. Significance was found for the variable major field when continuously enrolled males were compared with voluntary withdrawals and for females when continuously enrolled were compared with those dismissed for academic deficiencies. Significance was shown for females for level of educational aspiration for continuously enrolled compared to those dropped for academic deficiencies.

The analyses of Student Personnel Needs are shown in Tables 4 and 5 for males and females respectively.

Insert Tables 4 and 5 about here

Tables 4 and 5 indicate significant relationships for males and females in plans to participate in intercollegiate athletics when comparing those continually enrolled with those dropped for academic deficiencies and voluntary withdrawals with those dropped for academic deficiencies. Further examination of the frequencies indicated the students

dropped for academic deficiencies had a higher proportion planning to participate in athletics than the other two groups.

Table 4 shows significance when comparing continually enrolled males with those dropped for academic deficiencies for the variables of participation in science clubs and projects and participation in intramurals. A greater proportion of those continually enrolled than those dropped for academic deficiencies planned to participate in science clubs and projects while the proportions were in the opposite direction for participation in intramurals. Significance was found on the variable anticipated financial need for those who withdrew compared to those who were dropped.

Table 5 shows significant values in the areas of music, debate, acting, and intramurals. In each case the category of females planning to participate the most was least likely to remain continually enrolled.

Tables 6 and 7 present the analyses of the Nonacademic Achievements.

Insert Tables 6 and 7 about here

Tables 6 and 7 indicate no significant relationships between the categories of students and the variables.

Tables 8 and 9 present the analyses of College Attractions.

Insert Tables 8 and 9 about here

Table 8 shows five significant relationships in widely varied areas. Those who remained continuously enrolled chose Stout for its special curriculum and progressive, liberal outlook more often than those who were dropped. There was a significant relationship between those remaining enrolled and those who withdrew and those who withdrew and those who were dropped on the variable talking with an admissions counselor. There was significance on the variable desirable intellectual atmosphere when comparing those continually enrolled and those dropped for academic deficiencies.

Table 9 reports four significant relationships for females and College Attractions. For the variables good athletic program and fraternities and sororities, females who remained continually enrolled gave this as one of their reasons for choosing Stout. The variable high scholastic standards was significant for those who withdrew compared to those who were dropped.

Tables 10 and 11 present the analyses for Demographic Data for males and females respectively.

Insert Tables 10 and 11 about here

Tables 10 and 11 show significant relationships for

the variable marital, dating status. For both males and females those who remain continually enrolled are less likely to indicate they date one person, are pinned, going steady, or engaged than those who withdrew. For females, the frequencies showed that those who were dropped were more likely to be dating one person, be pinned, going steady, or engaged than those who withdrew voluntarily.

Discussion

The findings do support previous studies (Hood, 1957 and Iffert, 1958) that certain nonintellective factors are significant in studying persistence. The factors differ but the fact that they are nonintellective gives additional evidence that they may contribute to our knowledge of college students. The fact that this data was collected prior to the student's entrance into the university indicates the answers are stated in terms of what he believes to be true. The significant relationships should be further examined in light of what actually happens after the student enrolls. At this point nonintellective factors can only be used in a limited way to assist in prediction. The Student Personnel staff should be aware that there is some significance and conduct further investigation.

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TABLE 1

Freshman Enrollment, Stout State University, Fall 1965 and Size of Sample by Categories

	Male		Female	
	N	%	N	%
New freshmen, totals	530		422	
New freshmen with Student Profile Section data	485	92	382	91
Maintained continuous enrollment (P)	231	47.6	209	54.7
Voluntarily withdrew (W)	105	21.6	136	35.6
Dismissed for academic deficiencies (D)	149	30.7	37	9.6

TABLE 2

Chi Square Analysis: Relationship between Males and Goals and Aspirations

Variables	df	P/W[1]	P/D[2]	W/D[3]
Major field	6	13.28*	12.12	3.48
Vocational choice	6	9.29	9.73	3.94
Vocational role	7	9.10	13.42	14.31*
Level of educational aspiration	3	3.30	2.85	4.82
Most important college goal	2	0.29	1.63	2.09
Second most important college goal	3	0.15	0.24	0.17

[1] Comparison of those continually enrolled (P) with those who withdrew voluntarily (W).

[2] Comparison of those continually enrolled (P) with those dropped for academic deficiencies (D).

[3] Comparison of those who withdrew voluntarily (W) with those dropped for academic deficiencies (D).

* $p < .05$

TABLE 3

Chi Square Analysis: Relationship between Females and Goals and Aspirations

Variables	df	P/W	P/D	W/D
Major field	5	4.74	12.08*	4.16
Vocational choice	5	1.70	5.63	8.04
Vocational role	7	4.49	7.10	18.15*
Level of educational aspiration	2	3.32	8.12*	4.31
Most important college goal	2	0.51	0.59	1.05
Second most important college goal	3	1.91	1.29	1.21

* $p < .05$

TABLE 4

Chi Square Analysis: Relationship between Males and Student Personnel Needs

Variables	df	P/W	P/D	W/D
Housing expectations	4	6.82	6.13	3.61
Hours of part-time work expected	4	7.78	3.39	1.72
Extracurricular intentions				
Athletics	1	0.06	9.72*	4.67*
Music	1	0.17	0.10	0.00
Writing	1	0.04	0.08	0.03
Student government	1	0.10	3.23	1.09
Science clubs and projects	1	0.89	5.45*	0.81
Debate	1	0.03	1.28	1.39
Acting	1	0.07	1.36	0.23
Departmental clubs in major field	1	0.23	2.61	0.41
Intramurals	1	0.33	6.77*	1.81
Anticipated financial need	2	4.73	3.51	11.06*
Automobile intentions	1	0.22	0.20	0.77

* $p < .05$

TABLE 5

Chi Square Analysis: Relationship between Females and Student Personnel Needs

Variables	df	P/W	P/D	W/D
Housing expectations	2	0.32	5.39	2.67
Hours of part-time work expected	4	2.05	1.55	0.50
Extracurricular intentions				
Athletics	1	0.01	6.65*	5.15*
Music	1	0.74	4.39*	2.02
Writing	1	1.18	0.01	0.39
Student government	1	0.44	0.65	0.10
Science clubs and projects	1	0.06	1.48	0.84
Debate	1	4.09*	3.24	0.08
Acting	1	5.13*	8.64*	1.76
Departmental clubs in major field	1	2.64	0.00	0.20
Intramurals	1	1.14	4.46*	1.53
Anticipated financial need	2	1.49	5.50	5.63
Automobile intentions	1	2.91	0.30	0.00

* $p < .05$

TABLE 6

Chi Square Analysis: Relationship between Males and Nonacademic Achievements

Variables	df	P/W	P/D	W/D
Science	3	5.87	0.86	6.51
Art	3	1.24	0.41	1.80
Dramatic arts	3	2.55	3.33	4.69
Literature	3	7.49	4.79	1.46
Leadership	4	3.02	4.85	6.11
Music	4	1.25	2.62	2.09

TABLE 7

Chi Square Analysis: Relationship between Females and Nonacademic Achievements

Variables	df	P/W	P/D	W/D
Science	1	1.65	0.05	0.03
Art	2	0.76	2.18	1.53
Dramatic arts	3	1.15	3.51	4.23
Literature	2	2.26	1.14	2.09
Leadership	3	6.54	1.56	2.05
Music	4	3.78	2.78	4.95

TABLE 8

Chi Square Analysis: Relationship between Males and College Attractions

Variables	df	P/W	P/D	W/D
Good faculty	2	2.27	0.72	2.47
High scholastic standards	2	1.64	3.94	1.40
Desirable social climate	2	1.24	1.05	2.65
Size	2	0.67	0.74	1.40
Desirable location	2	5.70	2.45	2.76
Special curriculum I wanted	2	5.38	15.67*	2.72
Comprehensive facilities	2	2.10	0.49	3.13
Emphasis on religious and ethical values	2	3.92	1.05	4.05
Progressive, liberal outlook	2	2.35	8.53*	2.61
Low-cost college	2	0.93	4.08	2.47
Good athletic program	2	0.89	4.39	2.63
Close to home	2	3.96	0.50	4.20
Advice of parents	2	2.74	0.97	1.91
Friends going there	2	0.74	1.91	0.92
Advice of high school teacher	2	1.15	1.88	0.88
Advice of counselor	2	3.34	2.08	0.57
Talk with admissions counselor	2	10.62*	2.14	7.99*

TABLE 8

Variables	df	P/W	P/D	W/D
Campus visit or tour	2	4.18	2.54	3.91
Fraternities, sororities	2	0.99	2.99	2.23
Financial aid	2	5.61	3.96	1.19
Desirable intellectual atmosphere	2	6.90*	5.38	1.30
National reputation	2	1.68	1.76	0.74

* $p < .05$

TABLE 9

Chi Square Analysis: Relationship between Females and College Attractions

Variables	df	P/W	P/D	W/D
Good faculty	2	4.48	1.68	2.17
High scholastic standards	2	2.48	5.80	8.10*
Desirable social climate	2	2.65	3.19	3.77
Size	2	1.44	4.09	2.21
Desirable location	2	4.81	0.63	1.66
Special curriculum I wanted	2	1.70	1.12	0.13
Comprehensive facilities	2	1.19	0.15	1.13
Emphasis on religious and ethical values	2	0.68	1.39	0.91
Progressive, liberal outlook	2	3.03	3.17	0.35
Low-cost college	2	0.35	2.65	2.30
Good athletic program	2	9.43*	4.15	0.58
Close to home	2	3.00	0.85	3.09
Advice of parents	2	0.24	0.31	0.47
Friends going there	2	2.06	4.90	4.63
Advice of high school teacher	2	0.32	0.80	1.36
Advice of counselor	2	2.20	0.68	0.74
Talk with admissions counselor	2	1.05	2.24	1.52

TABLE 9

Variables	df	P/W	P/D	W/D
Campus visit or tour	2	3.02	0.39	0.95
Fraternities, sororities	2	7.35*	7.51*	1.97
Financial aid	2	5.75	1.06	1.53
Desirable intellectual atmosphere	2	1.96	0.68	2.15
National reputation	2	0.75	0.83	1.01

* $p < .05$

TABLE 10

Chi Square Analysis: Relationship between Males and Demographic Data

Variables	df	P/W	P/D	W/D
Type of home community	5	5.16	2.35	5.88
Estimated family income	6	1.55	5.71	3.99
Age	2	5.48	5.36	0.71
Marital, dating status	4	19.81*	6.54	7.50

* $p < .05$

TABLE 11

Chi Square Analysis: Relationship between Females and Demographic Data

Variables	df	P/W	P/D	W/D
Type of home community	5	9.55	3.69	10.93
Estimated family income	6	4.54	3.62	6.85
Age	2	3.08	1.08	2.72
Marital, dating status	4	19.03*	0.51	10.63*

* $p < .05$